

WHAT IS CLAIMED IS:

- 1                   1. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:
  - 3                   an 11b processing section, for processing at least data to be transmitted to the access  
4 point into representations of a transmit signal;
  - 5                   an OFDM processing section, for processing at least a representation of a receive signal  
6 from the access point into receive data;
  - 7                   at least one transmit antenna, coupled to the 11b processing section;
  - 8                   at least one receive antenna, coupled to the OFDM processing section; and
  - 9                   logic for routing information between a client and the client wireless module.
- 1                   2. The client wireless module of claim 1, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.
- 1                   3. The client wireless module of claim 1, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.
- 1                   4. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:
  - 3                   an OFDM processing section, for processing at least data to be transmitted to the access  
4 point into representations of a transmit signal;
  - 5                   an 11b processing section, for processing at least a representation of a receive signal  
6 from the access point into receive data;
  - 7                   at least one transmit antenna, coupled to the OFDM processing section;
  - 8                   at least one receive antenna, coupled to the 11b processing section; and
  - 9                   logic for routing information between a client and the client wireless module.
- 1                   5. The client wireless module of claim 4, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.
- 1                   6. The client wireless module of claim 4, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.
- 1                   7. An access point wireless module, for handling communications to and from  
2 an client wireless module, comprising:

3       an 802.11b processing section, for processing at least data to be transmitted to the client  
4            into representations of a transmit signal;  
5       an 802.11g processing section, for processing at least a representation of a receive signal  
6            from the client into receive data;  
7       at least one transmit antenna, coupled to the 802.11b processing section;  
8       at least one receive antenna, coupled to the 802.11g processing section; and  
9       logic for routing information between an access point and the access point wireless  
10          module.

1               8. The access point wireless module of claim 7, wherein the at least one  
2          transmit antenna comprises a plurality of transmit antennas.

1               9. The access point wireless module of claim 8, wherein the at least one  
2          receive antenna comprises a plurality of receive antennas.

1               10. An access point wireless module, for handling communications to and  
2          from an client wireless module, comprising:  
3               an 802.11g processing section, for processing at least data to be transmitted to the client  
4                    into representations of a transmit signal;  
5               an 802.11b processing section, for processing at least a representation of a receive signal  
6                    from the client into receive data;  
7               at least one transmit antenna, coupled to the 802.11g processing section;  
8               at least one receive antenna, coupled to the 802.11b processing section; and  
9               logic for routing information between an access point and the access point wireless  
10          module.

1               11. The access point wireless module of claim 10, wherein the at least one  
2          transmit antenna comprises a plurality of transmit antennas.

1               12. The access point wireless module of claim 10, wherein the at least one  
2          receive antenna comprises a plurality of receive antennas.

1               13. A method of wireless communication between a client device and an  
2          access point, wherein a client device is a wireless network station that is portable, mobile or  
3          portable and mobile, the method comprising:  
4               transmitting upstream data from the client device using an 802.11b protocol;

- 5 receiving the upstream data at the client device;
- 6 transmitting downstream data from the access point using an 802.11g protocol; and
- 7 receiving the downstream data at the client device.